

25C5

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BEAM POWER TUBE

7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	25	ac or dc volts
Current	0.3	amp

Direct Interelectrode Capacitances (Approx.)°:

Grid No.1 to plate	0.6	μμf
Grid No.1 to cathode & grid No.3, grid No.2 and heater	13	μμf
Plate to cathode & grid No.3, grid No.2 and heater	8.5	μμf

Mechanical:

Operating Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Maximum Diameter	3/4"
Dimensional Outline	*See General Section*
Bulb	T5-1/2
Base	Small-Button Miniature 7-Pin (JETEC No.E7-1)
Basing Designation for BOTTOM VIEW	7CV

Pin 1 - Cathode, Grid No.3
Pin 2 - Grid No.1
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Grid No.1
Pin 6 - Grid No.2
Pin 7 - Plate

AMPLIFIER — Class A_1

Maximum Ratings, *Design-Center Values:*

PLATE VOLTAGE	135	max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE	117	max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Positive bias value	0	max.	volts
GRID-No.2 INPUT	1.25	max.	watts
PLATE DISSIPATION	6	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200*	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	220	max.	°C

Typical Operation and Characteristics:

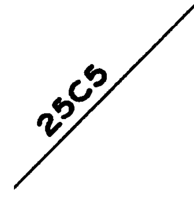
Plate Voltage	120	volts
Grid-No.2 Voltage	110	volts
Grid-No.1 Voltage	-8	volts

°,*: See next page.

ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA





25C5

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Peak AF Grid-No.1 Voltage.	8	volts
Zero-Signal Plate Current.	49	ma
Max.-Signal Plate Current.	50	ma
Zero-Signal Grid-No.2 Current.	4	ma
Max.-Signal Grid-No.2 Current.	8.5	ma
Plate Resistance (Approx.)	10000	ohms
Transconductance	7500	μmhos
Load Resistance.	2500	ohms
Total Harmonic Distortion.	10	%
Max.-Signal Power Output	2.3	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

° Without external shield.

* The dc component must not exceed 100 volts.

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25C5

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AVERAGE CHARACTERISTICS

E_f = 25 VOLTS
GRID-№ 2 VOLTS = 110

GRID-№1 VOLTS E_{C1} = 0

-2

-4

-6

-8

-10

-12

-14

E_{C1} = 0

I_b

I_{C2}

PLATE VOLTS

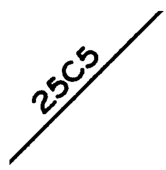
0 50 100 150 200 250

140 120 100 80 60 40 20 0

PLATE (I_b) OR GRID-№2 (I_{C2}) MILLIAMPERES

ELECTRON TUBE DIVISION 92CM-8908R2

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY





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OPERATION CHARACTERISTICS

E_f = 25 VOLTS   PLATE VOLTS = 120   GRID-No2 VOLTS = 110
GRID-No1 VOLTS = -8   SIGNAL VOLTS (RMS) = 5.7

POWER OUTPUT—WATTS: 2.5, 2.0, 1.5, 1.0, 0.5, 0

TOTAL HARMONIC DISTORTION—PER CENT: 25, 20, 15, 10, 5

POWER OUTPUT

PLATE CURRENT

TOTAL DISTORTION

GRID-No2 CURRENT

MAXIMUM-SIGNAL PLATE MILLIAMPERES
MAXIMUM-SIGNAL GRID-No2 MILLIAMPERES
60, 55, 50, 45, 40, 35, 30, 25, 20, 15, 10, 5, 0

0   1000   2000   3000   4000   5000   6000
LOAD RESISTANCE—OHMS